

ABSTRACT

A new method of detecting a reticle option layer in an integrated circuit device has been achieved. The method may be applied to detect the presence of the threshold voltage implantation reticle option layer by direct die probing or by probing a pin of a package integrated circuit. The current through a first MOS transistor is measured by forcing a test voltage on the drain and the gate. The gate and the drain of the first MOS transistor are connected together while the source is connected to a reference voltage. The first MOS transistor has the standard threshold implantation but not the threshold voltage reticle option. The current through a second MOS transistor is measured by forcing the same test voltage on the drain and the gate. The gate and said drain of the second MOS transistor are connected together while the source is connected to a reference voltage. The second MOS transistor has the standard threshold voltage implantation and the threshold voltage implantation reticle option layer. The current through the first NMOS transistor and the current through the second MOS transistor are compared to detect the presence of the threshold voltage implantation reticle option layer in the integrated circuit device.